

# **Hamilton City Flood Damage Reduction and Ecosystem Restoration, California**

## **Feasibility Study Public Workshop to Review and Comment Tentatively Recommended Plan**

**Hamilton City, California**

**May 6, 2004**





# Overview

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- **Purpose**
  - **Provide a summary of key information from previous workshops**
  - **Review tentatively recommended plan**
  - **Provide opportunity for comments**





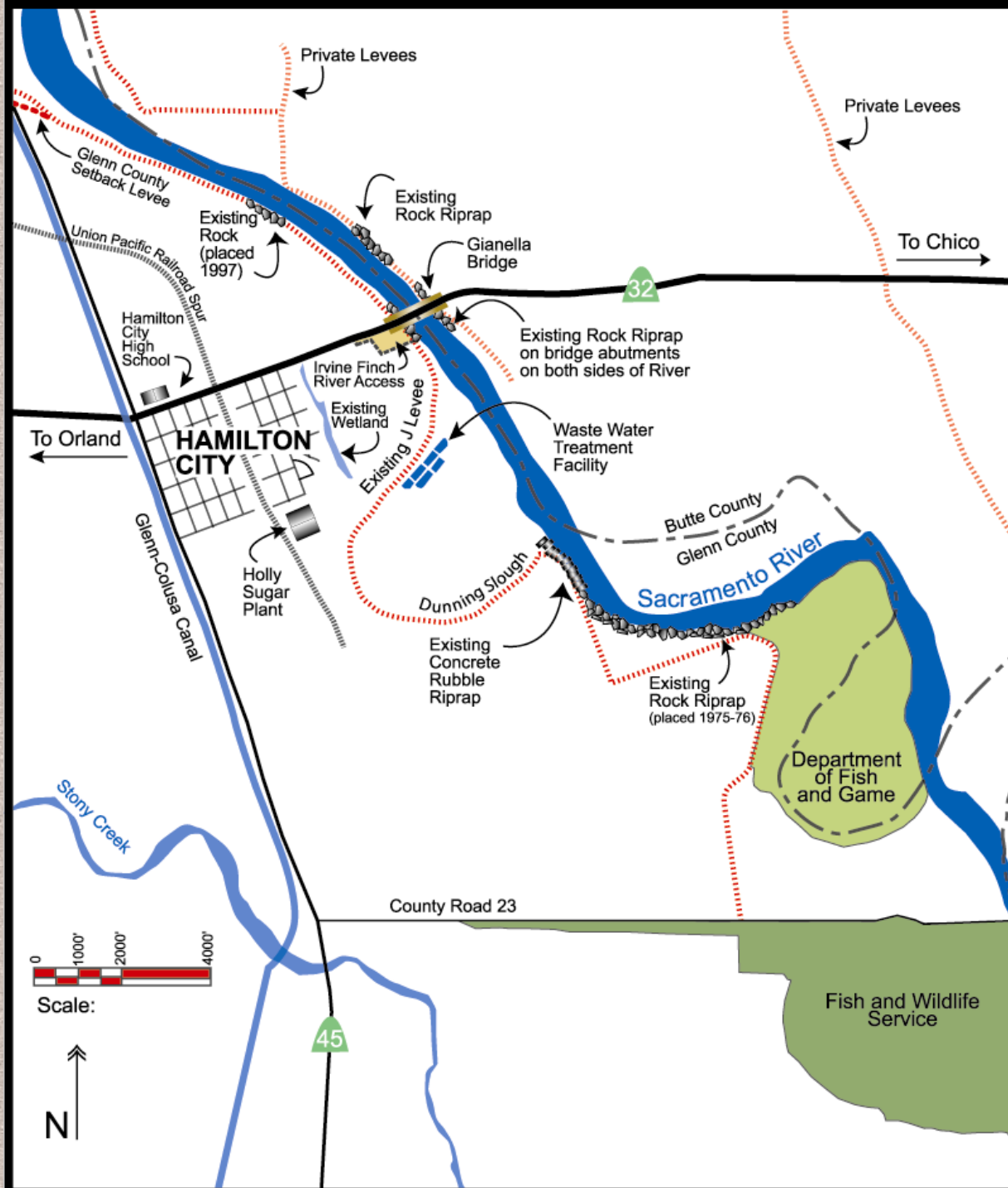
# Previous Workshops

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- Study Area
- Objectives
- Single Purpose vs. Combined Plans
- Development of Alternative Plans



# Study Area





# Summary of Objectives

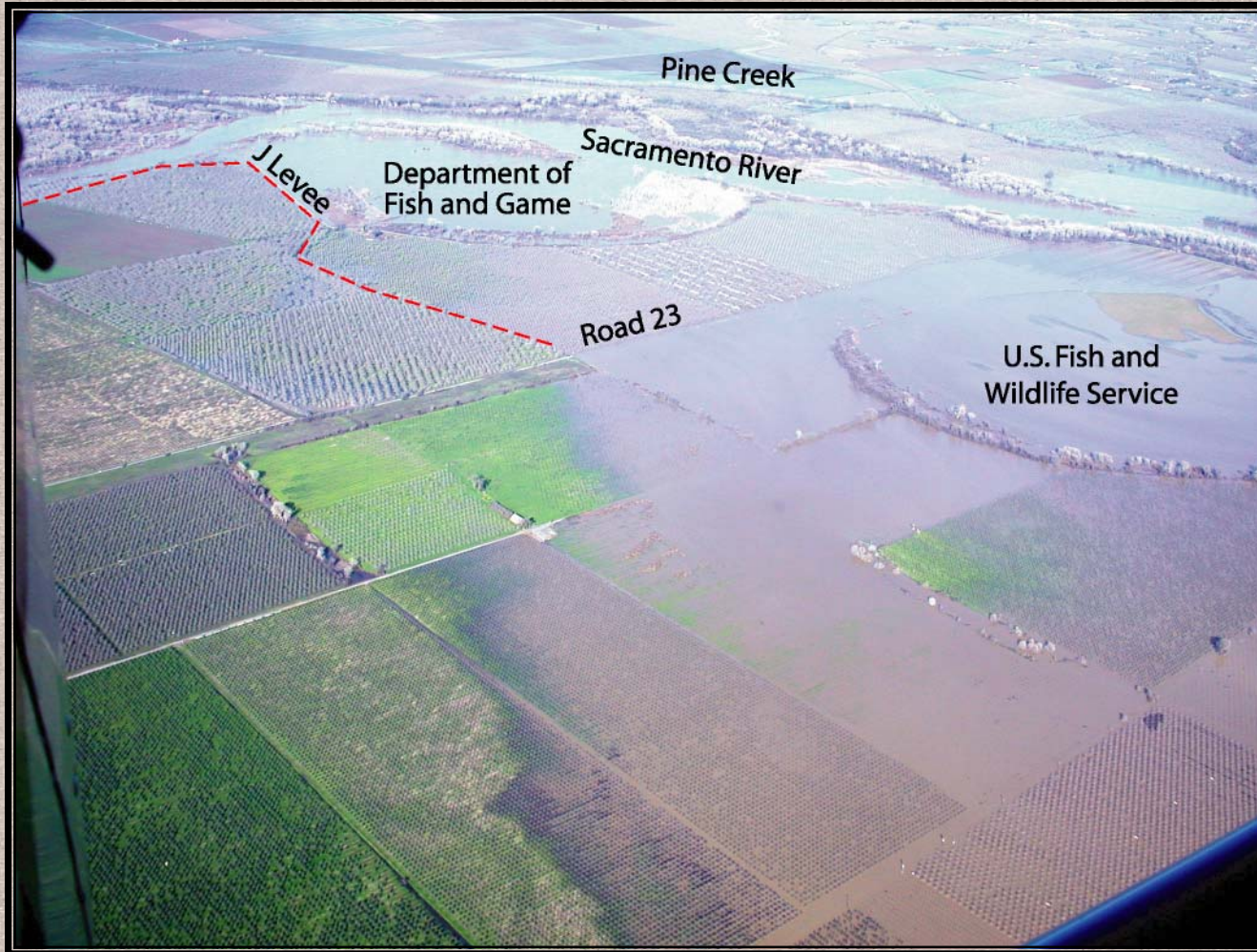
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- **Flooding**
  - Reduce Flood Risk
  - Reduce Flood Damages
- **Ecosystem**
  - Improve Quantity and Quality of Habitat
  - Restore River Function





# Recent Flooding February 2004





# Single Purpose vs. Combined Purpose Projects

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Flood Damage  
Reduction Only

Benefit - \$

Cost - \$

Ecosystem  
Restoration Only

Benefit - habitat

Cost - \$

Flood Damage  
Reduction and  
Ecosystem Restoration

Benefit - \$

Benefit - habitat

Cost -

Shared  
Cost

- Cost savings over two single purpose only plans
- Only way to provide economically justified flood damage reduction



# Alternative Plans

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- **No Action**
- **Six Action Alternatives**
- **Defined by Significant Characteristics**
  - **Length of Levee**
  - **Habitat Quality and Quantity**
  - **Costs**
  - **Flood Damages**
  - **Flood Risk**





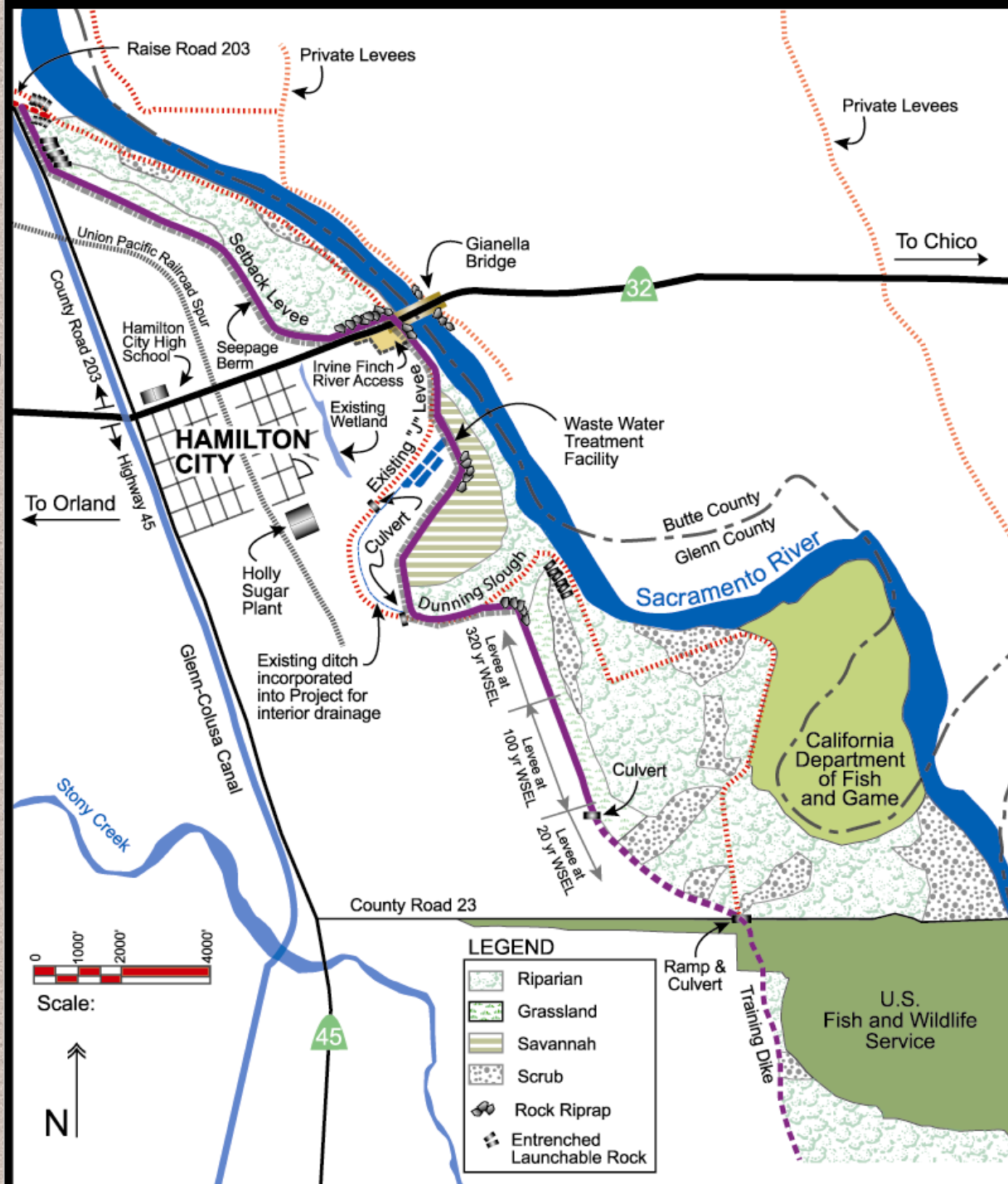
# Summary of Benefits and Cost for Alternative Plans

Combined Alternatives	Average Annual Habitat Units	Flood Damage Reduction Benefits (\$1,000)	Total Annual Costs (\$1,000)	Remaining Annual Costs (\$1,000)	Cost Effective
Alternative 1	783	583	2,547	1,964	Yes
Alternative 2	795	437	2,878	2,441	No
Alternative 3	895	428	3,483	3,055	No
Alternative 4	642	446	2,441	1,995	No
Alternative 5	937	575	2,980	2,405	Yes
Alternative 6	888	584	2,623	2,039	Yes



# Tentatively Recommended Plan

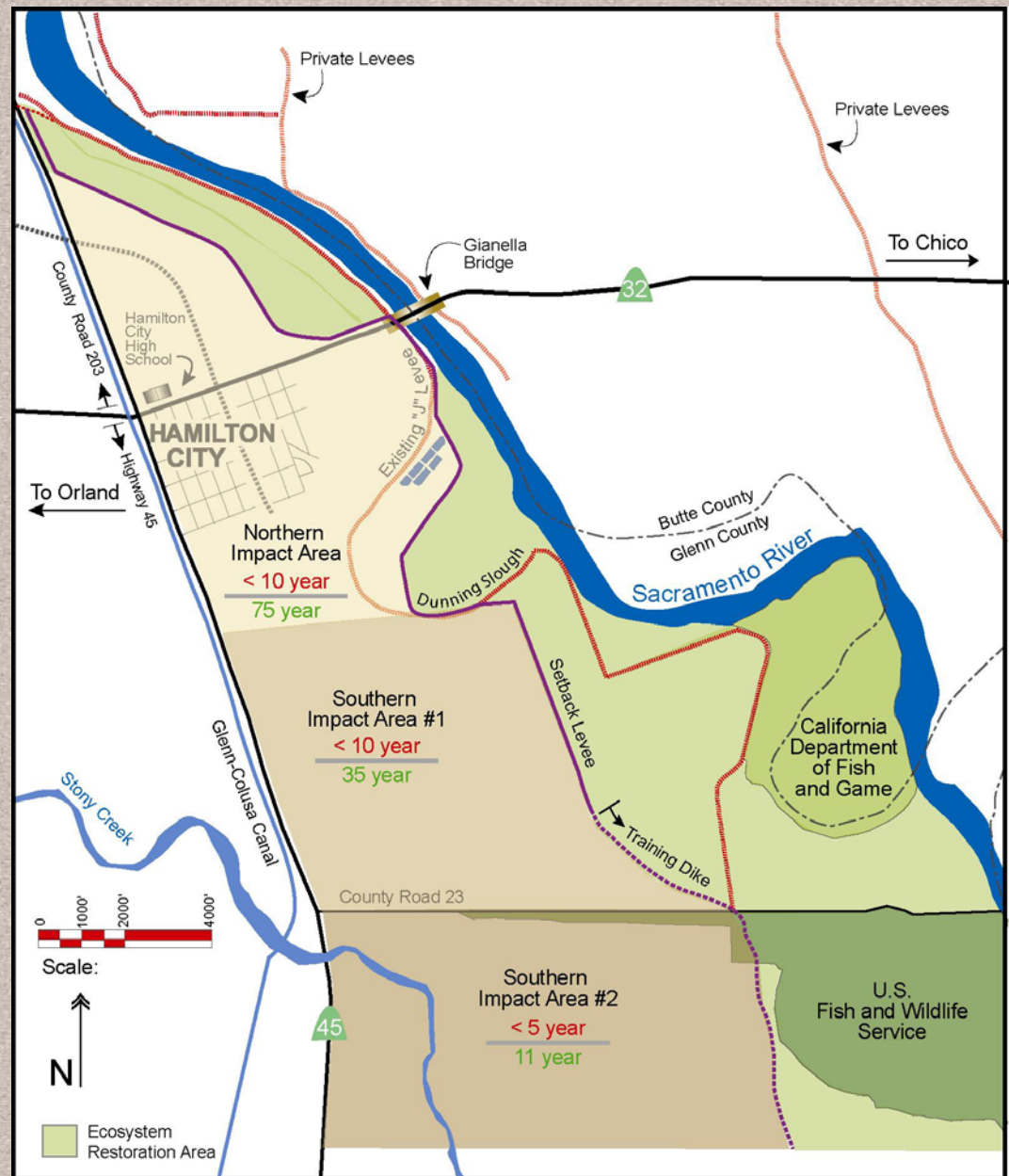
- Remove “J” Levee
- Construct 6.8 miles of setback levee
- Provides up to 90% confidence of passing a 75-yr event
- Restore 1,476 acres of native habitat communities





# Flood Damage Reduction Benefits:

- Reduced Flood Risks to Hamilton City and agriculture



Hamilton City Flood Risk: Conditional Non-Exceedance Probability  
(Measures 90% probability of surviving a specific event)

RED: Without Project

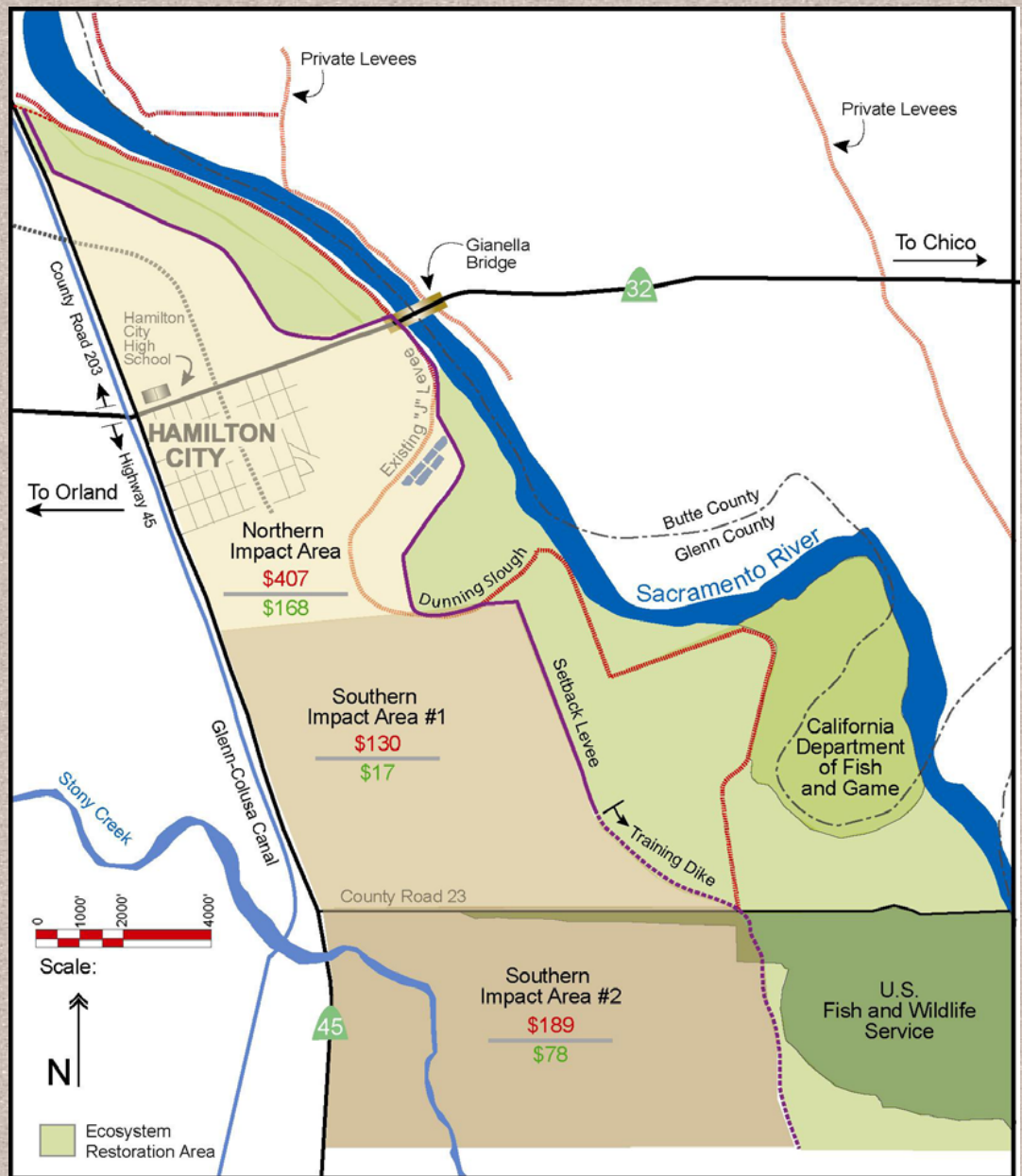
GREEN: With Tentatively Recommended Plan



# Flood Damage Reduction Benefits:

## Annual Flood Damage (Thousands of Dollars)

- Reduced Flood Damages to Hamilton City and agriculture



Hamilton City Flood Risk: Equivalent Annual Flood Damage (In thousands of dollars)  
(Measures average annual flood damages)

RED: Without Project

GREEN: With Tentatively Recommended Plan



# Ecosystem Benefits

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- **Restore 1,476 Acres of Native Habitat**

<b>Habitat Community Type</b>	<b>Without-Project (Acres)</b>	<b>With-Project (Acres)</b>	<b>Restored Habitat (Acres)</b>
<b>Riparian</b>	<b>97</b>	<b>1,094</b>	<b>997</b>
<b>Grassland</b>	<b>85</b>	<b>155</b>	<b>70</b>
<b>Savannah</b>	<b>0.0</b>	<b>148</b>	<b>148</b>
<b>Scrub</b>	<b>0.0</b>	<b>261</b>	<b>261</b>
<b>Total</b>			<b>1,476</b>

- **Reestablishes Natural Hydrologic Connection of River and Floodplain**





# Project Cost

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Project Purpose	Federal	Non-Federal	Total
Ecosystem Restoration	\$25,520,000	\$13,741,000	\$39,261,000
Flood Damage Reduction	\$2,853,000	\$1,536,000	\$4,389,000
Cultural Resource Preservation	\$170,000		\$170,000
Totals	\$28,543,000	\$15,277,000	\$43,820,000

Non-Federal (State and Locals)	
Total	\$15,277,000
Lands, Easements, Right of Ways, Relocations and Disposal/Borrow Areas (LERRD's)	\$13,388,000
Cash	\$1,889,000



# Project Schedule

<b>45-day Public/Agency Review of Draft Feasibility Report/EIS/EIR</b>	<b>April 9, 2004 – May 24, 2004</b>
<b>Public/Agency Workshop on Tentatively Recommended Plan</b>	<b>May 6, 2004</b>
<b>Reclamation Board Presentation on Tentatively Recommended Plan</b>	<b>May 24, 2004</b>
<b>Reclamation Board Scheduled Public Hearing and Vote</b>	<b>July 16, 2004</b>
<b>Report to Corps' South Pacific Division</b>	<b>August 2004</b>
<b>Corps' South Pacific Division Engineers Notice</b>	<b>September 2004</b>
<b>Potential Water Resources Development Act 2004</b>	<b>October 2004</b>
<b>Corps' Chief of Engineers Report</b>	<b>December 2004</b>
<b>Cost Sharing Agreements for Design</b>	<b>As early as September 2004</b>
<b>Preconstruction Engineering and Design Phase</b>	<b>As early as September 2004 - 2006</b>
<b>Cost Sharing Agreements for Construction</b>	<b>2006</b>
<b>Initiate Construction</b>	<b>2006</b>
<b>Complete Physical Construction</b>	<b>2008</b>
<b>Complete Plant Establishment Period</b>	<b>2010</b>
<b>Complete Monitoring</b>	<b>2013</b>





# **Hamilton City Flood Damage Reduction and Ecosystem Restoration, California**

**Electronic copies of the report can be  
viewed at  
[www.compstudy.org/hamilton.html](http://www.compstudy.org/hamilton.html)**

